

Appl. Serial No.: 10/757,754
Amdt. dated Aug. 25, 2005
Reply to Office Action of May 25, 2005

REMARKS

Claims 1-9, 11-17, 19, and 21-24 remain in the application. Claims 10, 18, and 20 have been cancelled. By this amendment, claims 1 and 16 are amended. The present application as originally filed supports these amendments. No new matter has been added.

Claim Rejections

Claims 1-9, 11-17, 19, and 21-24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,982,844 to Tybinkowski et al. ("Tybinkowski I") in view of U.S. Patent No. 5,937,028 to Tybinkowski et al. ("Tybinkowski II") and U.S. Patent No. 4,239,969 to Haas et al.

Independent claim 1 recites "A tomography scanner system, comprising: a base; a gantry supported on the base and including an outer, non-rotating support ring and an inner rotatable component ring supported for rotation on the support ring about a rotation axis of the gantry; an annular main body adapted for attachment to the inner rotatable component ring, the annular main body defining a source aperture and a detector aperture, wherein the source aperture is diametrically opposed on the annular main body from the detector aperture; an x-ray source and an x-ray detector array secured to the annular main body ~~rotatable component ring~~ for rotation with the annular main body ~~component ring~~; an x-ray containment shield enclosing the x-ray source and the x-ray detector array and secured to the rotatable component ring for rotation with the component ring; a first, non-rotating x-ray containment tunnel extending from an open end to the rotating x-ray containment shield coaxial with the rotation axis of the gantry, and a second, non-rotating x-ray containment tunnel extending from the rotating x-ray containment shield to an open end coaxial with the rotation axis of the gantry; and a continuous conveyor belt including a forward path extending through the tunnels and the gantry and a return path extending outside the

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tunnels and the gantry.”

None of Tybinkowski I, Tybinkowski II, or Haas et al, whether the references are considered alone or in combination, teach or suggest the subject matter of amended claim 1, subject matter that includes “an annular main body adapted for attachment to the inner rotatable component ring, the annular main body defining a source aperture and a detector aperture, wherein the source aperture is diametrically opposed on the annular main body from the detector aperture; an x-ray source and an x-ray detector array secured to the annular main body for rotation with the annular main body.”

Furthermore, Applicant respectfully asserts that the Examiner’s conclusion of obviousness was based on impermissible hindsight reasoning, and that, therefore, no prima facie case of obviousness has been established. As the Examiner is aware, to establish a prima facie case of obviousness, there must be, among other things, a suggestion or motivation to modify the reference(s) or combine reference teachings. In the instant Office Action, the Examiner contended that such motivation is found in Haas et al. at column 2, lines 38-41. This cited text was relied upon for the proposition that it teaches or suggests “minimizing the amount of material that interacts with X-ray transmission prior to reception by a detection element.” After reviewing Haas et al., however, Applicant finds no portion that teaches or suggests the desirability of minimizing material that interacts with transmission prior to reception by a detection element.

Not only is there no such motivation in Haas et al, but no such suggestion or motivation would be available to one of ordinary skill in the art. Tomographic reconstruction of objects using X-rays, as described in the present application, is based on the absorption of the X-rays over the radiation path from a radiation source to the detector(s). This X-ray absorption is

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primarily a function of the density of the matter along the radiation path, and not necessarily the amount of material, or thickness, or number of layers of material along the path. As is well known in the art, a small layer of a relatively dense material such as lead, e.g., 2.5 mm as described in paragraph [0032] of the application, can effectively absorb and stop X-rays from a typical X-ray source. In contrast, materials with lower densities, such as water and common materials for conveyor belts, can be virtually transparent to X-rays over much greater distances, meaning that multiple layers or zones of such material would have little effect on X-ray absorption. Because of this, one of skill in the art would not understand Haas et al. as teaching a desirability for "minimizing the amount of material that interacts with X-ray transmission prior to reception by a detection element," as the Examiner contends. Accordingly, the rejection was based on improper hindsight analysis, and a prima facie case of obviousness not been properly established.

Therefore, amended independent claim 1 is patentable over the cited references. Because claims 2-9, 11-17, 19 and 21-24, depend from claim 1, either directly or by way of intervening claims, they are therefore patentable for at least the same reasons as claim 1.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1-9, 11-17, 19, and 21-24 under 35 U.S.C. 103(a).

Conclusion

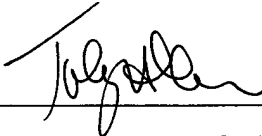
In view of the amendments and remarks submitted herein, Applicant believes that all claims pending in the application are in condition for allowance and respectfully requests a timely Notice of Allowance for the application. If a telephone conference will expedite prosecution of the application the Examiner is invited to telephone the undersigned. If additional

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fees are required, or otherwise necessary to cover any deficiency in fees already paid,
authorization is hereby given to charge our deposit account no. 50-1133.

Respectfully submitted,
McDermott Will & Emery LLP

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